

**REMARKS**

Claims 1-23 are pending in the above-identified application. It is respectfully submitted that this response is fully responsive to the Office Action dated April 20, 2005.

Claims 1-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Davis* (US 6,181,803 B1), and further in view of *Matchett et al.* (US 5,229,764). In rejecting these claims, the Examiner acknowledged that “*Davis* does not clearly state that additional authentication information is different from the input biometric information when predetermined biometric data cannot match.” However, the Examiner stated that it would have been obvious to have applied the teaching of *Matchett et al.* into *Davis* so as to improve system security (col. 3, lines 13-14). For at least the following reasons, Applicants respectfully disagree with the Examiner’s basis of rejection.

One object of the present invention is to provide an authentication apparatus and method appropriate for most users, including those having poor reproducibility in biometric information in the user authentication technology based on biometric information. [p. 3]. To accomplish this objective, in part, the above-identified application recites the following claim features: *a request unit requesting an input of additional authentication information different from the input biometric information when said estimation unit estimates that a predetermined matching precision cannot be obtained and a determination unit computing matching precision by combining a matching check result about biometric feature information with a matching check result about additional authentication information, and determining based on a computation result whether or not a user is authenticated.*

Accordingly, the estimated matching precision determines whether a predetermined matching precision is obtainable or not. It is when a predetermined matching precision cannot be obtained that additional authentication information is used. As recited in the above-identified application, the additional authentication information is input “when said estimation unit estimates that a predetermined matching precision cannot be obtained.”

On the other hand, the *Matchett et al.* system is a continuous biometric authentication matrix. The *Matchett et al.* reference teaches: “During use of the protected system or device, if access is granted, the user is continuously, at intermittent or random intervals, and/or at each attempt to command or interact with the system, retested and the new input biometric data compared to the reference data. If at any point during usage of the protected system or device the user should fail one test or a plurality of tests, the user’s access would be terminated.” [col. 3, lines 35-44, cited by the Examiner.]

Thus, neither *Davis*, nor *Matchett et al.*, teach or suggest a request unit requesting an input of additional authentication information different from the input biometric information when said estimation unit estimates that a predetermined matching precision cannot be obtained and a determination unit computing matching precision by combining a matching check result about biometric feature information with a matching check result about additional authentication information, and determining based on a computation result whether or not a user is authenticated.

Even if one were to combine the teachings of *Davis* and *Matchett et al.*, the resultant combination would merely result in “improved system security”. We believe that this

combination suffers the same problems discussed in the background of the invention (i.e., page 2, "The reproducibility of biometric information mostly depends on each person, and some users may indicate very low reproducibility of biometric information. It is difficult for those users to use the system as is.") For at least these reasons, the above-identified application patently distinguishes over the cited references.

In view of the aforementioned remarks, Applicants submit that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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